

WHAT IS CLAIMED IS:

1. A flexible subscriber video device (SVD) configured to support playback of AV signals packetized for delivery in an AV only transport associated with AV packets and an integrated transport associated with AV and data  
5 packets, the SVD comprising:

a switch configured to simultaneously separate packets associated with the AV only transport from packets associated with the integrated transport;

a data processor in communication with the switch and configured to separate AV related packets from data related packets included within the integrated  
10 transport; and

a demultiplexer in communication with the switch and data processor configured to demultiplex AV packets outputted therefrom.

2. The SVD of claim 1 wherein the AV only transport is associated with a baseline architecture.

15 3. The SVD of claim 1 wherein the integrated transport is associated with an extended mode 1 architecture.

4. The SVD of claim 1 wherein the integrated transport is associated with an extended mode 2 architecture.

20 5. A flexible subscriber video device (SVD) configured to support digital television (DTV) signals packetized according MPEG-2 and DOCSIS protocols, the SVD comprising:

a switch configured to separate packets associated with MPEG-2 protocols from packets associated with the DOCSIS protocols;

25 a DOCSIS data processor in communication with the switch and configured to receive the packets associated with the DOCSIS protocols and to separate AV related packets from data related packets included therein; and

a demultiplexer in communication with the switch and data processor and configured to demultiplex AV packets outputted therefrom.

6. The SVD of claim 5 further comprising a decoder in communication with the demultiplexer and configured to decode AV payloads for output to a video port and an audio port.

7. The SVD of claim 6 wherein the decoder is configured for decoding payloads compressed according to MPEG-2 protocols.

8. The SVD of claim 6 wherein the decoder is configured for decoding payloads compressed according to advanced video compression (AVC) protocols.

9. The SVD of claim 8 wherein the AVC protocols are associated with MPEG-4.

10. The SVD of claim 8 wherein the AVC protocols are associated with H.264.

11. The SVD of claim 5 further comprising a cable modem in communication with the DOCSIS processor for processing data packets.

12. The SVD of claim 5 further comprising a tuner and demodulated configured to tuned to a radio frequency (RF) carrier frequency associated with the transport and demodulate the tuned transport for output to the switch.

13. A reference model for use in a cable system to support transportation of video, audio, and data signals over a common transport, the reference model comprising:

an application layer defining creation of the video, audio, and data signals;

a link layer defining multiplexation of the video, audio, and data signals into the common transport; and

a physical layer defining transportation of the common transport over the cable system.

14. The reference model of claim 13 wherein the link layer defines multiplexing of the signals based on data over cable services interface specifications (DOCSIS).  
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15. The reference model of claim 13 wherein the link layer is based on a DOCSIS transmission convergence sub-layer that include identifies data packets with packet identifier (PID) 0x1FFE and without an associated adaptation field and the audio and video packets with PIDs other than those having the 0x1FFE designation and with an adaptation field for decoder synchronization.  
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16. The reference model of claim 13 further comprising a transport layer defining management of the video, audio, and data signals.

17. The reference model of claim 15 wherein the transport layer defines management based on real-time protocols (RTP), user datagram protocols (UDP), transmission control protocols (TCP), and/or MPEG-2 protocols.  
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18. The reference model of claim 13 further comprising a network layer defining transmission of the video, audio, and data signals between networks.

19. The reference model of claim 17 wherein the network layer defines transmission based on internet protocols (IP).

20. The reference model of claim 13 wherein the layers support a baseline architecture, an extended mode 1 architecture, and an extended mode 2 architecture.  
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21. A flexible subscriber video device (SVD) configured to support playback of AV signals carried in a first or second transport, the first transport having packets with only AV payloads and the second transport having  
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packets with AV payloads and other packets with data payloads, the SVD comprising:

a switch configured to simultaneously route the first transport to a demultiplexer and the second transport to a data processor;

5 wherein the demultiplexer is configured to demultiplex the AV payloads for decoding and output as audio and video signals; and

wherein the data processor is configured to separate the AV payloads from the data payloads carried in the second transport and to output the AV payloads to the demultiplexer and the data payloads to a microprocessor such that the SVD  
10 is configured to simultaneously receive both of the first and second transport streams and to decode and process the associated AV and data payloads.